General

Guideline Title

Upper tract urothelial tumours.

Bibliographic Source(s)

Alberta Provincial Genitourinary Tumour Team. Upper tract urothelial tumours. Edmonton (Alberta): CancerControl Alberta; 2013 Apr. 10 p. (Clinical practice guideline; no. GU-008). [22 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

Work-up

Laboratory Investigations

- Urine cytology
- Complete blood count
- Basic metabolic panel (renal function)

Imaging Studies

- Intravenous pyelogram (IVP), computed tomography (CT) urography, retrograde pyelogram, ureteroscopy, or magnetic resonance imaging (MRI) urogram (upper tract collecting system)
- Cystoscopy
- Chest x-ray
- Renal scan (optional)
- Bone scan if abnormal enzymes or if bone signs/symptoms

Treatment

Primary Therapy for the Renal Pelvis

Low-Grade (World Health Organization [WHO] Classification)

- Nephroureterectomy with cuff of bladder or nephron-sparing procedure, if necessary, due to renal impairment and/or comorbidities

High-Grade (WHO Classification) or Parenchymal Invasion

- Nephroureterectomy with cuff of bladder
- Regional lymph node dissection
- Neoadjuvant chemotherapy can be considered, if the degree of disease invasiveness can be established prior to surgery
    - Chemotherapy is usually given as cisplatinum-based combination therapy (e.g., cisplatinum, 70 mg/m^2 day 1 and gemcitabine, 1,000–1,250 mg/m^2 day 1 and 8 every [q] 21 days).
    - Neoadjuvant therapy should be given only when renal function is optimal.
    - Patients with contraindications to cisplatinum should proceed directly to definitive therapy, as the routine use of carboplatinum-based neoadjuvant combinations cannot be advised.
    - Following neoadjuvant chemotherapy patients should have a CT scan of abdomen and pelvis, prior to the cystectomy.

Primary Therapy for the Urothelial Carcinoma of the Ureter

Low-Grade (WHO Classification)

- Nephroureterectomy with cuff of bladder or nephron-sparing procedure, if necessary, due to renal impairment and/or comorbidities

High-Grade (WHO Classification)

- Excision options:
    - Nephroureterectomy with cuff of bladder
    - Endoscopic resection
    - Excision and ureteroureterostomy (low-grade mid-ureter)
    - Distal ureterectomy (distal-ureter)
- Regional lymph node dissection
- Neoadjuvant chemotherapy should be considered in selected patients with proven high-grade disease or imaging suggesting invasive disease.
    - Chemotherapy is usually given as cisplatinum-based combination therapy (e.g., cisplatinum, 70 mg/m^2 day 1 and gemcitabine, 1000–1250 mg/m^2 day 1 and 8 q 21 days).
    - Neoadjuvant therapy should be given only when renal function is optimal.
    - Patients with contraindications to cisplatinum should proceed directly to definitive therapy, as the routine use of carboplatinum-based neoadjuvant combinations cannot be advised.
    - Following neoadjuvant chemotherapy patients should have a CT scan of abdomen and pelvis, prior to the cystectomy.

Primary Therapy for Metastatic Urothelial Carcinoma

Chemotherapy is recommended for metastatic upper tract tumours. Please refer to the CancerControl Alberta guideline Bladder Cancer (GU-002) for treatment options.

Adjuvant Therapy

The decision as to whether to give adjuvant therapy is based on the pathologic stage of disease. For staging, refer to the Appendix in the original guideline document.

pT0-1 Disease

- No adjuvant therapy is recommended.

T2-4, N+ Disease

- Adjuvant chemotherapy can be considered.
    - Chemotherapy is usually given as cisplatinum-based combination therapy (e.g., cisplatinum, 70 mg/m^2 day 1 and gemcitabine, 1000–1250 mg/m^2 day 1 and 8 q 21 days).
    - Adjuvant therapy should be given when renal function is optimal.
    - Patients who are ineligible for cisplatinum based combination therapy in the adjuvant setting should not routinely receive carboplatinum-based regimens as there is no evidence for benefit.

Follow-up

- Cystoscopic evaluation every 3 months for the first year, then at every 6 months up to 2 years, then annually for 10 years.
- Chest x-ray as clinically indicated, then at increasing intervals (i.e., decreasing frequency).
- Radiological evaluation of lymph nodes and contra lateral upper tract, as clinically indicated.
- Duration as clinically indicated.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Upper tract urothelial tumours (transitional cell carcinoma of the ureter and/or renal pelvis)

Guideline Category

Diagnosis

Evaluation

Management

Treatment

Clinical Specialty

Oncology

Pathology

Radiology

Surgery

Urology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To present guideline recommendations on the management of adult patients with transitional cell carcinoma (urothelial carcinoma) of the ureter and/or renal pelvis

Target Population

Adult patients with transitional cell carcinoma (urothelial carcinoma) of the ureter and/or renal pelvis

Interventions and Practices Considered

Diagnosis/Evaluation

1. Laboratory investigations
    - Urine cytology
    - Complete blood count
    - Basic metabolic panel (renal function)
2. Imaging studies
    - Intravenous pyelogram (IVP)
    - Computed tomography (CT) urography
    - Retrograde pyelogram
    - Ureteroscopy
    - Magnetic resonance imaging (MRI) urogram (upper tract collecting system)
    - Cystoscopy
    - Chest x-ray
    - Renal scan (optional)
    - Bone scan if abnormal enzymes or if bone signs/symptoms

Treatment/Management

1. Nephroureterectomy with cuff of bladder or nephron-sparing procedure
2. Regional lymph node dissection
3. Endoscopic resection
4. Excision and ureteroureterostomy (low-grade mid-ureter)
5. Distal ureterectomy
6. Neoadjuvant or adjuvant chemotherapy (cisplatinum-based contamination therapy)
7. Follow-up

Major Outcomes Considered

- Survival rate (5-year, overall, recurrence-free, disease-free)
- Response rate
- Recurrence rate
- Cancer-specific mortality

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Research Questions

Specific research questions to be addressed by the guideline document were formulated by the guideline lead(s) and Knowledge Management (KM) Specialist using the PICO question format (patient or population, intervention, comparisons, outcomes).

Guideline Questions

- What staging investigations are required for patients with upper tract tumours?
- What are the appropriate treatment options (i.e., surgery, systemic therapy, etc.) for patients with upper tract tumours?
- What is a reasonable follow-up strategy for patients who have completed treatment for upper tract tumours?

Search Strategy

The PubMed database was searched for relevant literature using the following search terms: (renal pelvis AND neoplasm) OR (ureter AND neoplasm) AND transitional cell carcinoma. Results were limited to clinical trials, practice guidelines, systematic reviews, and meta-analyses published from 1991 through 2012 March. The Medline database was also searched using the MeSH terms "Carcinoma, Transitional Cell" with subheadings drug therapy, radiotherapy, surgery and therapy, combined with the MeSH terms "Kidney Pelvis" and "Urinary Bladder Neoplasms." Results were limited to literature published between 1990 and 2012 March. Based on feedback from the working group, the Medline database was searched subsequently using the MeSH terms "Carcinoma, Transitional Cell" AND "Neoadjuvant therapy" with subheading drug therapy. Results were limited to literature published from 1990 through 2012 July. Non-relevant publications were excluded, as well as any publications that did not report survival outcomes.

The National Comprehensive Cancer Network (NCCN), British Columbia Cancer Agency (BCCA), European Society of Medical Oncology (ESMO), National Institute for Health and Care Excellence (NICE), American Society of Clinical Oncology (ASCO), Scottish Intercollegiate Guidelines Network (SIGN), Cancer Council Australia (CCA), and Cancer Care Ontario (CCO) websites were searched for guidelines on the management of upper tract tumours.

Number of Source Documents

A total of 3 guidelines, 1 meta-analysis, and 22 clinical studies (i.e., retrospective case series, prospective cohort studies, phase II-III trials) were included.

Methods Used to Assess the Quality and Strength of the Evidence

Not stated

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Evidence was selected and reviewed by a working group comprised of members from the Alberta Provincial Genitourinary Tumour Team and a Knowledge Management (KM) Specialist from the Guideline Utilization Resource Unit (GURU). A detailed description of the methodology followed during the guideline development process can be found in the Guideline Utilization Resource Unit Handbook (see the "Availability of Companion Documents" field).

Evidence Tables

Evidence tables containing the first author, year of publication, patient group/stage of disease, methodology, and main outcomes of interest are assembled using the studies identified in the literature search. Existing guidelines on the topic are assessed by the KM Specialist using portions of the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument (http://www.agreetrust.org) and those meeting the minimum requirements are included in the evidence document. Due to limited resources, GURU does not regularly employ the use of

multiple reviewers to rank the level of evidence; rather, the methodology portion of the evidence table contains the pertinent information required for the reader to judge for himself the quality of the studies.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Formulating Recommendations

The working group members formulated the guideline recommendations based on the evidence synthesized by the Knowledge Management (KM) Specialist during the planning process, blended with expert clinical interpretation of the evidence. As detailed in the Guideline Utilization Resource Unit Handbook (see the "Availability of Companion Documents" field), the working group members may decide to adopt the recommendations of another institution without any revisions, adapt the recommendations of another institution or institutions to better reflect local practices, or develop their own set of recommendations by adapting some, but not all, recommendations from different guidelines.

The degree to which a recommendation is based on expert opinion of the working group and/or the Provincial Tumour Team members is explicitly stated in the guideline recommendations. Similar to the American Society of Clinical Oncology (ASCO) methodology for formulating guideline recommendations, the Guideline Utilization Resource Unit (GURU) does not use formal rating schemes for describing the strength of the recommendations, but rather describes, in conventional and explicit language, the type and quality of the research and existing guidelines that were taken into consideration when formulating the recommendations.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This guideline was reviewed and endorsed by the Alberta Provincial Genitourinary Tumour Team.

When the draft guideline document has been completed, revised, and reviewed by the Knowledge Management (KM) Specialist and the working group members, it is sent to all members of the Provincial Tumour Team for review and comment. This step ensures that those intended to use the guideline have the opportunity to review the document and identify potential difficulties for implementation before the guideline is finalized. Depending on the size of the document, and the number of people it is sent to for review, a deadline of one to two weeks will usually be given to submit any feedback. Ideally, this review will occur prior to the annual Provincial Tumour Team meeting, and a discussion of the proposed edits will take place at the meeting. The working group members will then make final revisions to the document based on the received feedback, as appropriate. Once the guideline is finalized, it will be officially endorsed by the Provincial Tumour Team Lead and the Executive Director of Provincial Tumour Programs.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate work-up and treatment of upper tract urothelial tumours

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

The recommendations contained in this guideline are a consensus of the Alberta Provincial Genitourinary Tumour Team and are a synthesis of currently accepted approaches to management, derived from a review of relevant scientific literature. Clinicians applying these guidelines should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care.

Implementation of the Guideline

Description of Implementation Strategy

- Present the guideline at the local and provincial tumour team meetings and weekly rounds.
- Post the guideline on the Alberta Health Services Web site.
- Send an electronic notification of the new guideline to all members of CancerControl Alberta.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

Alberta Provincial Genitourinary Tumour Team. Upper tract urothelial tumours. Edmonton (Alberta): CancerControl Alberta; 2013 Apr. 10 p. (Clinical practice guideline; no. GU-008). [22 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Apr

Guideline Developer(s)

CancerControl Alberta - State/Local Government Agency [Non-U.S.]

Source(s) of Funding

CancerControl Alberta

Guideline Committee

Alberta Provincial Genitourinary Tumour Team

Composition of Group That Authored the Guideline

Members of the Alberta Provincial Genitourinary Tumour Team include medical oncologists, radiation oncologists, urologists, pathologists, nurses, and pharmacists.

Financial Disclosures/Conflicts of Interest

Participation of members of the Alberta Provincial Genitourinary Tumour Team in the development of this guideline has been voluntary and the authors have not been remunerated for their contributions. There was no direct industry involvement in the development or dissemination of this guideline. CancerControl Alberta recognizes that although industry support of research, education and other areas is necessary in order to advance patient care, such support may lead to potential conflicts of interest. Some members of the Alberta Provincial Genitourinary Tumour Team are involved in research funded by industry or have other such potential conflicts of interest. However the developers of this guideline are satisfied it was developed in an unbiased manner.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the Alberta Health Services Web site .

Availability of Companion Documents

The following is available:

- Guideline utilization resource unit handbook. Edmonton (Alberta): CancerControl Alberta; 2013 Jan. 5 p. Electronic copies: Available from the Alberta Health Services Web site .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on August 12, 2014. The information was verified by the guideline developer on September 25, 2014.

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